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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,398	05/07/2001	Kazutoshi Yasunaga	P19926	1049

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/849,398	Applicant(s) YASUNAGA ET AL.	
	Examiner Michael N. Opsasnick	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 21-30 provisionally rejected under the judicially created doctrine of double patenting over claims 9-15 of copending Application No. 09/843939. This is a provisional double patenting rejection since the conflicting claims have not yet been patented (the claims of 09/843939 have been allowed, however, the patent has not yet been published).

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: the claim elements of non-zero vector elements, storage of fixed waveforms, a convolution calculation to modify the excitation vector using an energy spreading calculation, and inputting the modified excitation vector into the synthesis filter.

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Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

3. Claims 21-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6421639 in view of Hosada et al (5727122).

As per claims 21-30, U.S. Patent No. 6421639 teaches all of the claim elements (as found in claims 2-6, 9, of 6421639) except for the claim element of using the modified excitation vector into the synthesis filter, however, Hosada et al (5727122) teaches the concept of modifying the excitation vector for eventual use into the synthesis filter (Hosada et al (5727122), col. 6 lines 19-25, e_{scl} being the modified excitation vector of e_{st} ; Fig. 1, from subblock 114 to 115 to 105.) Therefore, it would have been obvious to one of ordinary skill in the art of speech signal processing at the time the invention was made to modify the invention as claimed in '639 with a modified excitation vector because it would advantageously incorporate the transfer function of the conversion circuit itself (Hosada et al (5727122), col. 6 lines 24-25).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hosoda et al (5727122).

As per claims 21,28, Hosoda et al (5727122) teaches a modified excitation vector generator used in a CELP speech encoder/decoder, coupled to an algebraic codebook and synthesis filter (as CELP system, abstract, fig.1) comprising:

“a vector providing system configured to provide an input excitation vector from said algebraic codebook” as the excitation codebook (fig. 1, subblock 108, and Fig. 2, subblock 205);

“a waveform providing system configure to provide a fixed waveform from memory” as the codebooks storing the waveform (col. 7 lines 40-45);

“a convolution system configured to convolute said fixed waveform with said input excitation vector to generate a modified excitation vector” as convolutional processing (col. 6 lines 19-21);

“wherein said modified excitation vector is provided as an input to the synthesis filter” as modified e_{scl} enters the synthesis filter (col. 6 lines 19-25, e_{scl} being the modified excitation vector of e_{sl} ; Fig. 1, from subblock 114 to 115 to 105).

As per claims 22,27,30, Hosoda et al (5727122) teaches spreading the input excitation vector over a new vector basis (as dictated by the h impulse response over a subframe (col. 6 lines 30-35)).

As per claim 23, Hosoda et al (5727122) teaches linear convolution (col. 6 lines 19-21, referring to equation (5)).

As per claims 24-26,29, Hosoda et al (5727122) teaches a plurality of non-zero, fixed waveforms for the subframe (col. 6 lines 19-25, the codebooks referring back to the indexed coefficients (col. 6 lines 10-20)).

Response to Arguments

6. Applicant's arguments with respect to claims 21-30 have been considered but are moot in view of the new ground(s) of rejection. Examiner notes that in the interview on March 21, 2005, double patenting was discussed with respect to 09/843939. Examiner agrees with the assessment provided by applicant's representative with respect to the discussion of double patenting, however, at the time, the examiner did not have time to pursue a detailed review of claims 9-17

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of the 09/843939 application; this detailed review has been conducted, and hence the double patenting rejection given above with respect to the 09/843939 application.

Conclusion

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young, can be reached at (571)272-7582. The facsimile phone number for this group is (571)272-7629.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571)272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno
7/6/05



Michael N. Opsasnick
Examiner
Art Unit 2655